

IN REHAB CENTER'S audiometric testing laboratory, Mrs. Joan Jackson, speech therapist, center, demonstrates testing facilities as T. E. Zudick (3465-1), Board Director, observes procedure.

ECP Funds Helping Agencies Which Aid Sandia Employees

Service is a two-way street. Sandians and the 34 local agencies which are members of the Sandia Laboratory Employees Contribution Plan (ECP) are proving this point.

In one direction, service consists of the time and talents given to ECP agencies by Sandia employees. In the other direction, service—in the form of professional assistance in the areas of health, education, guidance, and recreation—is provided to Sandia employees, their families, and friends by the ECP agencies.

In forthcoming issues, the Lab News will tour the street called Service by means of words and pictures. Along the way, the Lab News will provide coverage

of services in the areas of health, education, and rehabilitation; child care; youth; family, community; and nation.

The tour begins with health, education, and rehabilitation. Offering this type of service are such agencies as the New Mexico Rehabilitation Center, the Albuquerque Child Guidance Center, the New Mexico Hearing Society, the Special Education Center, and the Visiting Nursing Service.

New Mexico Rehabilitation Center

The first of these agencies, the "Rehab Center," is a good example of the two-way service approach.

The Rehab Center is the first complete multiple disability treat-

ment center in the state. Formally opened in 1958, it was voted into the United Community Fund on June 29, 1961; therefore, it is the youngest member of the ECP family.

Under the administrative supervision of Arthur Osterholm, the Center lists several Sandians who were instrumental in establishing the Center, and who serve as members of its board of directors: Harold V. Catt (6021), who is president of the Board; Tom Zudick (3465) and R. A. Quelle (3122), members of the Board.

Several Sandia employees' families are receiving therapy at the agency. It is open to any handi-

(Continued on Page Three)

Operation 'Sub-Rat' to Test New Underground Telemetry

An underground radio telemetry system designed and built by Sandia Laboratory will undergo tests this month in a salt mine near Winfield, La. Called "Operation Sub-Rat," the project will

test Subterranean Radio Telemetry.

The salt mine has been the scene of other AEC and Sandia activities in seismic research and the effects of chemical (non-nuclear) high-explosive detonations underground.

No explosives will be used during the experiments with the underground telemetry system. The characteristics of radio signals transmitted through the earth will be studied.

The project will involve drilling three 500-ft. vertical holes, each about two inches in diameter, in the floor of the mine which is approximately 800 ft. below the surface. Radio transmitting equipment will be installed in one hole at a total depth of some 1300 ft. The other two holes, at approximately the same level and several hundred yards away, will have receiving equipment.

Technical Director for the experiments is C. E. Ingersoll, supervisor of High-Resolution Telemetry Section 7254-2. Project engineer is A. J. Peterson. Participating will be J. I. Greenwell and R. J. Scussell of 7254-2. Also assisting at the Louisiana site will be Pete Seward of Engineering and Research Support Division III 2643.

Drilling at the site has already begun by the Waterways Experiment Station of the U.S. Corps of Engineers. The tests should be starting by the end of this month and finished during August.

Work Starting Soon On Holloman Sled Track Rain System

Construction will begin soon on a rain system to be used during supersonic rocket sled tests by Sandia Laboratory at the Holloman Air Force Base rocket sled track near Alamogordo, the AEC has announced. The system will simulate a rainfall of six inches per hour.

Sandia's Facilities Planning Division 7311 designed the rain system. Installation of the system will include construction of a pump house, storage tank, and water lines; relocation of some equipment; and other improvements. Plant Engineering Department project engineer for the system is E. L. Drake (4543-2).

The Burn Construction Company of Las Cruces submitted the apparent low bid of \$88,150. Work on the project is to be completed within 60 days after the contractor receives notice to proceed from the AEC.

Low Bidder Announced For Paving Area III Access Road Project

The apparent low bidder for a paving project involving an access road to Sandia Laboratory's Area III is the firm of Allison and Haney, Inc., of Albuquerque. Their bid of \$23,195 was the lowest of three bids opened June 29 by the AEC.

C. M. Morrisett (4543-3), Plant Engineering Department, is project engineer. The project includes about eight-tenths of a mile of resurfacing on an existing road bed, approximately two-tenths of a mile of new road, and extension of a triple culvert. Work is to be completed within 60 days after the contractor receives notice to proceed on the project from the AEC.

New Traffic Signals At Wyoming-Central Help Base Drivers

New traffic signals, which are timed to the advantage of Sandia Base motorists during peak traffic hours, have been installed at the intersection of Central and Wyoming NE.

The signals are controlled by trip plates located in the roadbed 1000 ft. in each direction from the intersection.

Motorists are encouraged to use all four lanes on Wyoming Blvd. as green arrows were installed to allow right and left turns onto Central Ave. The right lane may also be used for through traffic.

Sandia Corporation LAB NEWS

ALBUQUERQUE, N. MEX. • LIVERMORE, CALIF.

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New CDC 1604 Computer Will Be Arriving At Sandia Laboratory At End of This Month

A new general purpose digital computer system for Sandia Corporation research and development calculations will be arriving this month. The new computer is the Control Data Corporation 1604 system.

The 1604 is one of the first completely solid-state computers to be produced which utilizes magnetic core memory, diode logic, and transistor amplifiers, according to Jack Tischhauser, supervisor of Mathematical Services Division 7242.

Technically speaking, the 1604 is designated as a binary arithmetic parallel mode stored program general purpose computer with single address logic. "The 1604 is expected to add considerably to the scientific computing capability of the Corporation," Jack said. "Its internal arithmetic speeds are four

to five times those of the present computer and its memory storage is also greater."

"The 1604 is a flexible machine," Jack said. "It is capable of simultaneously reading information from two tapes, writing on two others, reading information from a typewriter and punching information on a paper tape, while internally performing problem computing."

"The 1604 word-size, which is the amount of information the computer normally processes in a single step, is 48 binary bits. This word-size, along with the greater memory capacity of the 1604, will make much easier such things as solving differential equations by the relaxation method, as well as providing other advantages," Jack said.

Eight Tape Units

The new system will have eight

magnetic tape units connected directly to the main computer. The tape units can transfer 30,000 six-bit characters per second to the computer memory.

Among other features, the 1604 has a paper tape input-output system, a console typewriter for direct communication between operator and computer, an arabic numeral console display, and a real time clock which records how much computer time a given problem requires.

The 1604 system includes a smaller computer, the CDC 160, which will "feed" the 1604. Since input-output operations such as printing, card reading, and card punching would slow down the 1604, the small 160 will perform these functions and prepare magnetic tapes for the 1604. The 1604 will be fed magnetic tapes prepared by the 160 and the 160 will receive the magnetic tapes from the 1604 for output operations. The 1604 in this manner can be used primarily for high-speed computing.

"The 1604 uses a different instruction language from our other computers," Jack said, "so in recent months considerable effort has been expended to convert old programs to the 1604 system. However 'compiler' programs such as the FORTRAN coding system will require very little change, since they are translated to basic machine language by the machine. A FORTRAN translator program has been written for the 1604. Along with the conversion effort, 'monitor' programs are being developed which will sequence one problem after another through the machine without stopping so that the machine time is most efficiently utilized."

"The 1604 will handle the same kind of scientific research and engineering problems that Sandia has had in the past, but with expanded capacity and greater speed," Jack said.

Variety of Uses

In addition to the reduction of all Field Test data, the 1604 will be used for a large variety of engineering, systems analysis, statistical studies, and research problems.

"Problems range from a pro-

(Continued on Page Four)



NEW COMPUTER, the Control Data Corporation 1604, will be arriving at Sandia Laboratory this month. The new computer is an advanced solid state machine with fast speed and high capacity.



35 INDIAN FAMILIES are believed to have lived in the cliff dwellings some 600 years ago. The largest cave is about 125 ft. in diameter. Shown here is one of the two adjoining cavities.

Visit to Remote Wilderness Area Calls for Careful Driving Habits

Sandia Corporation employees in New Mexico will find the Gila Wilderness Area within an easy weekend drive. This is the second article of a summer series describing vacation spots in Northern California and New Mexico.

Deep in the heart of the Gila Wilderness Area in southwest New Mexico is the state's largest cliff dwelling, infrequently visited yet fairly accessible.

The qualifying statement is necessary due to driver skill and road conditions which vary with the weather.

This summer 70 to 80 persons have visited the dwellings on Saturdays and Sundays with perhaps up to 30 on weekdays.

The Gila Cliff Dwellings became a national monument in 1907 and are now protected by the National Park Service.

Inner Loop

To reach the dwellings, leave Silver City on State Highway 25 (a Forest Service road also known locally as the "inner loop"). After driving seven miles you will pass through the ghost town of Pinos Altos, county seat during the gold and silver boom days and terminus of a narrow-gauge railroad that once carried ore to the Silver City smelters. Twenty miles further on the road crosses the Sapillo River; there the Copperas Canyon Trail starts. A word of warning: 20 miles of Forest Service gravel road cannot be driven in a half hour—allow at least an hour.

At the base of the Copperas Canyon Trail a sign gives warning that the road is passable only by jeeps or four-speed transmission trucks. Inquiry about road conditions should be made at Silver City in advance. This year, during the Chamber of Commerce's fourth annual Jeep Caravan to the dwellings, members of the advance planning party made the drive in late model cars, including those with automatic transmissions.

Steep Grade

The grade is steep until reaching the junction of the East and West Forks of the Gila River. From then on the trail winds through a forest corridor, crossing foot-deep streams six or eight times. The trail is only 21 miles long, but here again it is a long 21 miles!

When the trail deadends, it's a quarter-mile walk along the lush bank of a creek to the base of the cliff and an easy hike to the dwellings.

The dwellings were discovered by prospectors and hunters in the early 1870's. Numerous relics such as sandals, baskets, pottery, cooking utensils, and arrow shafts were found then. There still are a few pot shards and preserved corn cobs scattered about.

Judging from pottery fragments Indians occupied the cave dwellings about 600 years ago. Some 35 families took advantage of the four natural cavities in the face of a 150-ft. cliff. The Indians chose their site well; the caves are well-hidden, easily defended, close to a constant source of sweet water, and cool in summer.

Large Cave

The largest cave is nearly circular and about 125 ft. in diameter with natural archways leading

into two adjoining cavities. Inner walls were constructed of adobe and shale-like rock easily removed from the floor and sides of the cave. The ceiling is about 20 ft. high.

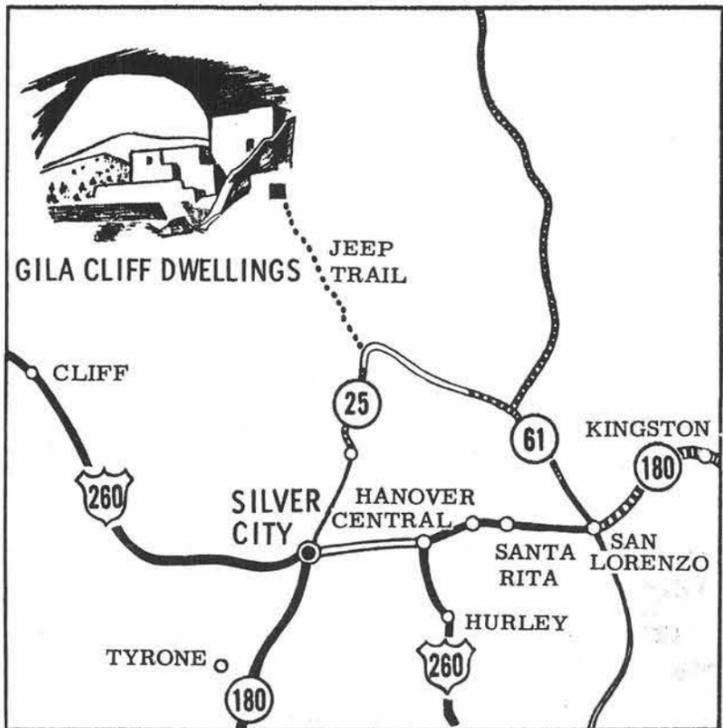
Above the doorways and windows, lintels of wood are still well-preserved; however, joists for a second story have been burned out.

Another cave, a short distance away, has never been explored due to its inaccessibility.

Trout fishing is good in the small streams in the Wilderness Area. Vacationers also have several other points of interest in the Silver City vicinity, namely the open pit copper mining operation at Santa Rita, the City of Rocks State Park, several ghost towns, Columbus where Pancho Villa staged his famous raid, and near-by Palomas, Mexico.



ANNUAL JEEP CARAVAN, sponsored by the Silver City-Grant County Chamber of Commerce, is ideal way to tour the Gila Wilderness Cliff Dwellings in early July. A huge barbecue follows.



IRE Space Electronics, Telemetry Group to Have Symposium Here

The IRE Professional Group on Space Electronics and Telemetry will hold its sixth National Symposium in Albuquerque on Sept. 6-8. Many Sandians are taking an active part in arrangements for this meet.

The symposium, held in cooperation with the University of New Mexico, will convene at Johnson gymnasium on the UNM campus. Six technical sessions are scheduled with about 28 papers to be presented.

Allen B. Church (1431-3) is chairman for the symposium. Sandians working with him are: R. C. Spence (7243), vice-chairman; T. L. Pace (7223-2), secretary; and W. T. Smith (7213), arrangements and social activities. Advisors to the steering committee include Robert Creveling (1413-1), W. C. Myre (7252), J. P. Shoup (1413), and R. P. Noble (1111).

Assisting with publicity will be C. E. Land (7223-1) and N. A. Lindsay (2412-2).

J. H. Scott, supervisor of Instrumentation Projects Department 7230, will be chairman of the session on "Engineering Aspects of Vela Hotel Background Experiments."

The subjects of the other sessions will be: Space Oriented Product Development, Satellite Relay Communication, Techniques for Space Communications, Techniques for Space Research, and Radio and Radar Astronomy.

The chairman of each technical session is responsible for inviting and selecting the papers to be presented at his respective sessions.

In addition to the technical sessions and exhibits, several social events are planned for conference guests and their wives.



1000 DAYS WITHOUT a security infraction was marked by personnel of the AEC-SAO Administrative Branch on June 16. Sybil A. Milligan, administrative assistant, received the Security Achievement Award from Area Manager Charles C. Campbell.

Congratulations

Born to:

Mr. and Mrs. Bill R. Emrick (2442) a son, Ronald Wayne, on June 28.

Mr. and Mrs. Roger C. Buehler (1424) a daughter, Cassandra Sue, on June 29.

Mr. and Mrs. Earl H. Simonson (4122) a son, Andrew Fredrich, on July 9.

Mr. and Mrs. Frank E. Chavez (4152-2) a son, Michael Ernest, on July 6.

Mr. and Mrs. Don Clarin (8142-2) a daughter, Melanie Anne, on July 1.

Mr. and Mrs. Joe Guzman (7325-2) a daughter, Amy Louise, on July 7.

Mr. and Mrs. Rene O. Letourneau (7182) a daughter, Michelle Denise, on July 3.

Sympathy

To D. D. Wader (4234) for the death of his mother on July 9.

To Peg Zumwalt (8233-1) for the death of her twin sister in Hong Kong, July 4.



Yvonne Garcia (3126)

Take a Memo, Please

What may seem like a little "wasted time" in being safe saves plenty of time by preventing a real waste of time later on.

Wedding

Philomena Chavarria (4212-2) was married June 30 in Albuquerque.



que to Russell Christianson. The couple is now at home at 614 Eleventh St. SW.

Philomena has been at Sandia since October 1958.

Blanche Calaway to Retire July 31

Retiring the end of this month will be Blanche Calaway, who has worked in Employee Processing and Reports Section 3153-2 for nearly 11 years.

During the entire time she has assisted new employees in filling out their security forms. "The job has been extremely exacting, but I love working with people," she said.

Before coming to Sandia, Miss Calaway did considerable youth counseling for her church.

She will continue to live at 1704 Silver SE where she has a rose garden that could keep her busy much of the time. Cooking is another of her specialties.

Sandia Corporation

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Continued from page one . . .

ECP Funds Help Agencies

capped child or adult who is able to benefit from help in the areas of psychology, hearing, speech correction, dental work, recreation, physical or occupational therapy, and vocational counseling. All admissions to the center are made by physicians' referrals, and by public and private health agencies.

Fees, which are based on ability to pay, provide about one-third of the agency's operating income. The remainder of the organization's \$81,000 budget comes from the United Community Fund, and from personal contributions. The building and equipment for the Center were paid for with funds raised locally by the New Mexico Society for Crippled Children and Adults, by provision of federal funds, and by donations from interested agencies and individuals.

Albuquerque Child Guidance Center

Whereas the Rehab Center is concerned with physical therapy of children, the Albuquerque Child Guidance Center is concerned with the treatment of children who have emotional and behavioral disorders. Children and their parents are eligible for the services of consulting psychiatrists, psychologists, and social workers. Training facilities are available at the Child Guidance Center for the University of New Mexico

College of Nursing, the College of Education, and local hospitals. The staff of the center also carries on research in mental health.

Mrs. Louise B. Johnson is the administrative supervisor of the Child Guidance Center. Financial support for the Center's \$16,111 budget is provided by the ECP through the United Community Fund, by donations, and by minimum fees for services.

New Mexico Hearing Society

The New Mexico Hearing Society gives assistance to children and adults with hearing problems. In-patients are screened by the University's Speech and Hearing Clinic. Hearing tests, lip reading and auditory training classes, and group therapy are available for patients. The Society also maintains a hearing library and information service.

The United Community Fund and the ECP financially support the Society, and additional support is derived from memberships, minimum fees, and donations. Mrs. Mary Pfeister supervises the administration of the Society. The Society's budget for this year is \$8860.

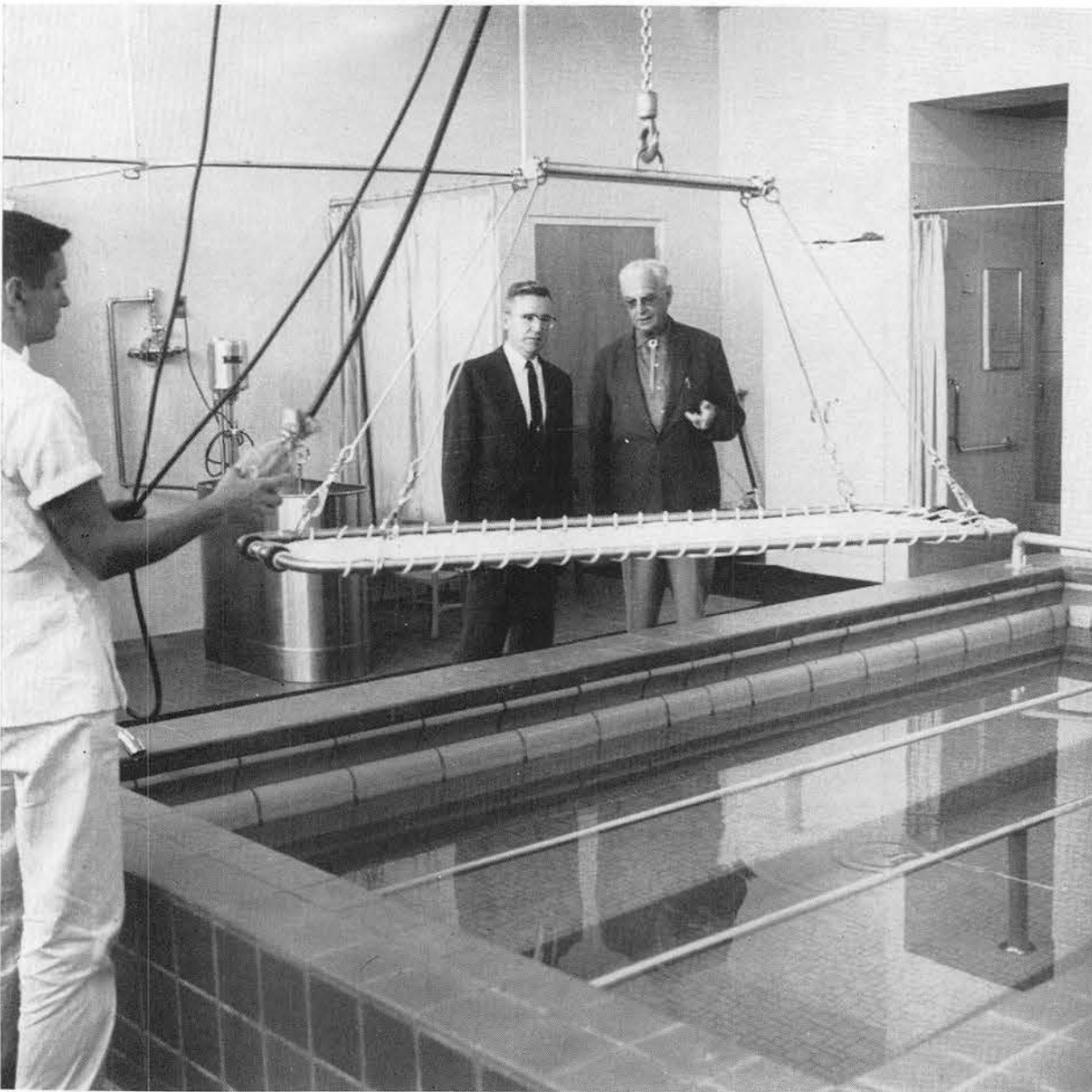
Special Education Center, Inc.

The Employees Contribution Fund gives financial support through the United Community Fund to the Special Education Center. This organization, which is directed by Mrs. Jeannette P. Reed, offers special educational facilities for children who are prevented from attending regular school classes because of mental, physical, or emotional handicaps. The agency gives help to those who suffer speech and hearing handicaps, physical coordination difficulties, and emotional handicaps. Tutoring and assistance are available for children requiring help in regular school subjects. The agency also receives income from tuition fees and gifts. This year's budget for the center is \$6000.

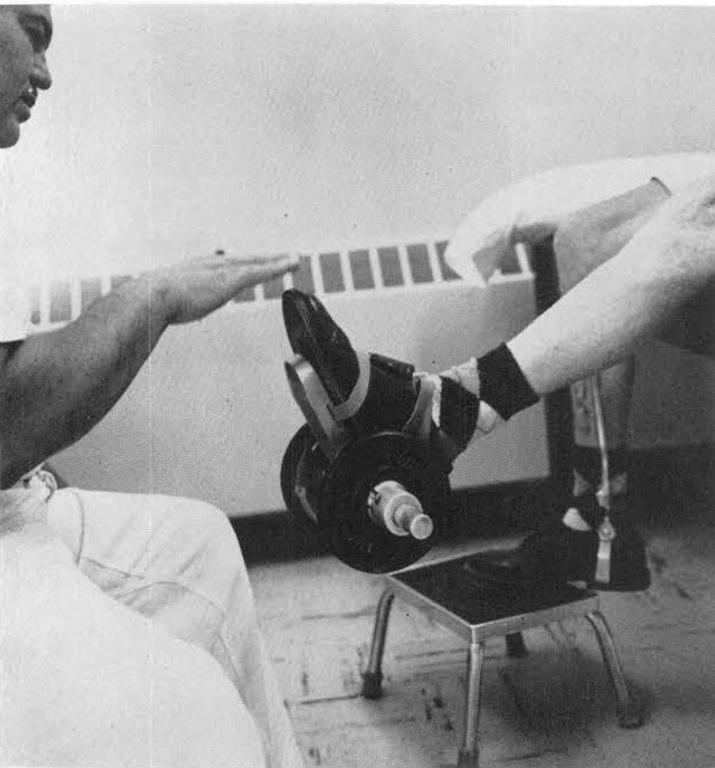
Visiting Nursing Service, Inc.

Sandians provide financial support, through ECP, to the Visiting Nursing Service. Income for the agency's \$16,678 budget is also provided by fees, contracts, and donations. This organization, which is a member of the United Community Fund, provides care for sick persons of any race or creed, regardless of their ability to pay for services. Care is available to those who suffer from acute or long-term illness or from any communicable disease. It is also available for the aged and the newborn. Medication and treatment are provided as ordered by the patient's physician.

The Nursing Service is a cooperative agency; it works with all other agencies in the community. Mrs. Eileen Van Landingham is the Service's administrative supervisor.



REHAB CENTER Supervisor Arthur Osterholm, right, explains use of power-operated stretcher to Harold V. Catt (6021), President of Center's Board of Directors, center. Physical therapist Gene LeCaptain, left, prepares to demonstrate lowering of the stretcher into the hydrotherapy pool.



PHYSICAL THERAPIST, Mr. Romero, utilizes weighted shoe to exercise and stretch patient's weakened leg muscles as a part of rehabilitation therapy in Therapy Dept. of Rehab Center.



VERY PATIENT patient waits, center, in a "barrel chair," a therapeutic support device designed and perfected by Mrs. Jean Ulivarri, left. Mrs. Ulivarri is an occupational therapist at the Rehab Center. The barrel chair is used to treat cerebral palsy.

Sandia Laboratory Helping in Rocket Flights To Measure Deep Space Radiation Density

During the first week in August a 27-lb. radiation-measuring instrumentation package will be lofted to an altitude of 140,000 miles by an Air Force rocket from Cape Canaveral. The package, a joint project of Sandia Laboratory and Los Alamos Scientific Laboratory, will measure electron and proton density in deep space and transmit the information to various receiving stations.

Responsible for Sandia's contribution to the project is Detectors and Power Supplies Section 7232-3 headed by C. G. Scott. Project engineer for the work is R. S. Reynolds. Assisting are C. J. Reed, R. D. House, J. R. Johnson, L. M. Bassart, W. R. Pfarner, and J. R. Phelan.

LASL provided detectors and associated electronic circuitry for the

package while Sandia designed the data handling apparatus and telemetry equipment. Sandia is also providing specially modified receivers for stations to be located at the Atlantic Missile Range, South Africa, and Australia.

Sandia's Space Communication Station near Coyote Test Field will also monitor the rocket and receive information from the flight.

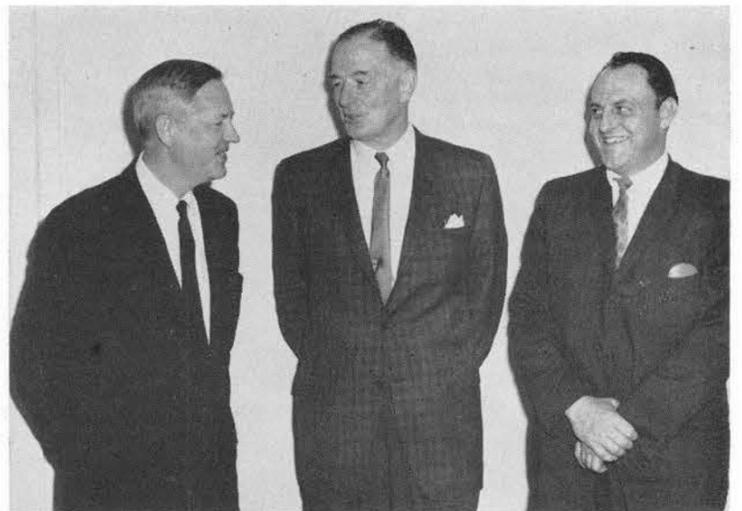
If the package reaches its planned apogee, it will be the deepest probe ever launched by a solid fuel rocket. The rocket, a Blue Scout Junior, is an Air Force Systems Command solid fuel ballistic research vehicle. It has four stages and is spin stabilized and unguided. It is the first of three Blue Scout Junior deep space radiation probes scheduled for this year and directed by Systems Command's

Air Force Special Weapons Center in Albuquerque.

Flight time to the 140,000 mile height is expected to be 57 hours. The package will burn up as it re-enters the atmosphere over the South Pacific.

A second Blue Scout Junior probe is planned for September to measure the proton density beyond the Van Allen radiation belts as part of a study of changes in the earth's magnetic field over the South Pole. This rocket will be launched from the Pacific Missile Range to a planned altitude of 23,000 miles.

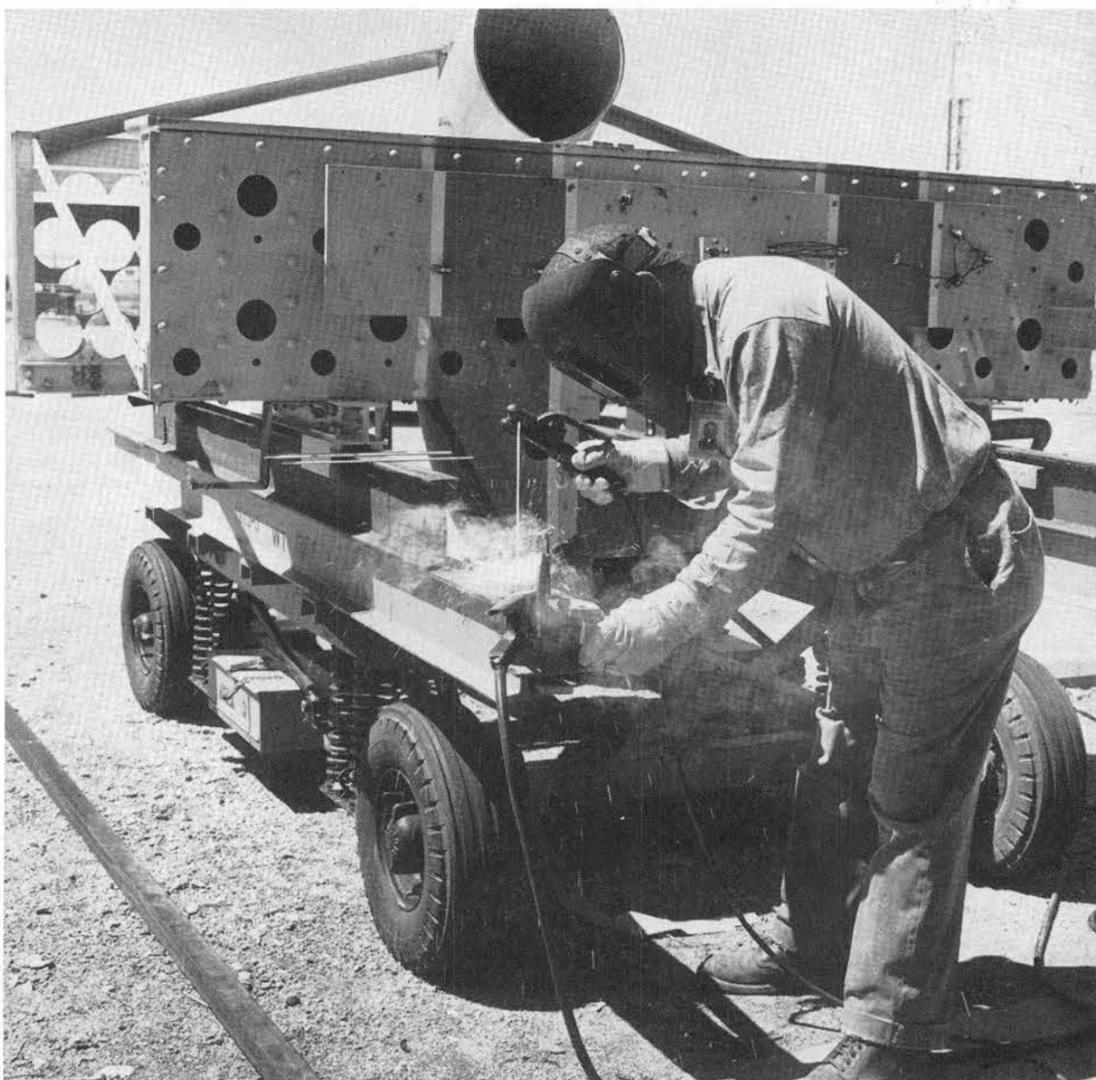
The third probe will be launched in October, again from the Pacific Missile Range, to an altitude in excess of 20,000 miles. This probe will carry gamma ray and X-ray detecting instrumentation.



VISITING SANDIA LABORATORY last week was Atomic Energy Commissioner Loren K. Olson (left). With S. P. Schwartz, Sandia Corporation President, center, is Commissioner Olson and Paul D. Verdow, Atomic Energy Commission special assistant, right.



CARPENTER Dick Carlisle uses woodworking machinery in Bldg. 6501's well equipped shop. An "empty shell" one year ago, the building now houses a first class maintenance plant to service Sandia Corporation's Area III and Coyote Test Field facilities.



WELDER D. C. Davis adds brackets to a Sandia "no job is routine." Men of Division 4518 provide rocket sled. Job is typical of Area III work where maintenance for environmental testing facilities.



STORAGE AREA of Area III Maintenance Division utilizes old railroad car covers and discarded guard shack. Here millwrights F. D. Carpenter (on truck) and Dennis Doherty load equipment. In the background is pictured the Area III water tower.

'Started from Scratch'

First-class Maintenance Plant Operating in Sandia Area III

Men of Area III Maintenance Division 4518 will mark their first year of operation on Aug. 1.

"We've come a long way since the Division was created," L. D. Chapman, 4518 supervisor said. "When we first organized in Area III, we operated out of this same Bldg. 6501 but it was just a metal shell full of discarded equipment and miscellaneous storage then. You might say we started from scratch."

From the first, the 24 electricians, pipefitters, welders, carpenters, painters, millwrights, laborers, and janitors concentrated on their primary job — maintenance service for the many environmental testing activities of Area III Laboratory Division 7323 and the Sandia installations in Coyote

Test Field. In recent weeks, the maintenance crews have provided service for Sandia's new pulsed reactor facility.

"Every spare minute," Mr. Chapman said, "was spent in making the building here into a first-class maintenance plant with welding shop, carpentry facility, electrical shop, and organized storage areas. It's required a year, but I think we are just about there."

Bldg. 6501 is now the scene of varied activity as welders work on rocket sleds, carpenters build test chambers, pipefitters assemble various apparatus. Millwrights load vehicles for moving and assembly jobs on heavy equipment or fabricate firing chambers while laborers perform many kinds of

support activity.

Behind the building are located neat storage areas for additional equipment and material. Three smaller buildings and a refurbished guard shack provide storage for paint, electrical equipment, millwright tools, lumber, and some work space.

"Those buildings are old railroad car covers. The Corporation has had them around for several years. We rounded them up and put them in shape for storage use," Mr. Chapman said. "As we readied the plant, we tried to use only what was available without having to purchase new material."

In most operations of the Division, the crews receive support from Motor Pool Division 4573. Transportation to all jobs and heavy moving equipment is provided by 4573.

"We work as a team," Mr. Chapman said, "to provide prompt service anywhere in the area. Drivers, electricians, pipefitters, and carpenters might all pitch in to get a job done quickly. The testing performed out here is important work and we feel part of it."

The Division is now equipped to handle any maintenance job in Area III.

W. B. S. Moore to Retire This Month

W. B. S. Moore will retire from Sandia Corporation on July 31.

He has been at Sandia since May 1954 and is a checker in Design Definition Section B V, 4412-5.

Mr. and Mrs. Moore live on Sandia Base at 3337-49th Loop

and have a son, also living in Albuquerque.

His future plans are indefinite; however, Mr. Moore will find time for a little fishing and hunting. In past summers he has enjoyed boating at Conchas Lake and Yellowstone Lake.

Continued from Page One

New Computer For Sandia

gram to simulate the telemetered signals from an earth satellite to a program which simulates the action of the human brain in moving a muscle," Jack said.

The 1604 will be operated by Department 7240 but will be shared with Mathematical Research Department 5420. This group is already using a CDC 160 and eventually it is planned to connect this machine, located in Bldg. 802, directly to the 1604 in Bldg. 880.

"This is a unique feature of the 1604," Jack said, "which will make possible a true satellite operation. The Mathematical Research 160 computer will be able to feed information directly into and receive information directly from the large computer. Until the cable or microwave link across the Tech Area is complete, the Mathematical Research 160 will prepare tapes for and process tapes from the 1604 in a way similar to the peripheral 160 at the computer installation."



SUFFICIENTLY PUZZLED by sign in Spanish the lingo, the message is "Be alert, avoid accidents"—which is good advice in any language. is Deanna Irvin (3126). For those who don't know

Better, Happier Stenographers and Bosses Is Aim Of Sandia Secretarial Services Organizations

Pleasing bosses, secretaries, and typists is the job of Secretarial Services organizations at both Livermore and Sandia Laboratories.

These organizations have aggressive programs which help develop competent secretarial and stenographic help.

Research and Development organizations at Sandia Laboratory have been using a secretarial service since early 1951. About two years ago the service was extended to cover the remaining organizations through Division level. Service at Livermore Laboratory has been for all organizations since the founding of the laboratory.

Supervision of more than 300 secretaries and typists at Sandia Laboratory is the job of Dean E. Irvin. He heads Sandia's Secretarial Services Division 3126. Section supervisors in that Division are Winifred Fellows, Kay Sadler, Lila Ness, Gertrude Byrne, Ilva Baldwin, Maxine Stephens, and Pat Farley.

At Livermore Laboratory, Cecile McIntosh has 37 girls in Secretarial Services Section 8212-3, and Mary Strickland has 45 girls in Section 8212-5. The Secretarial Services Sections are part of Personnel Division 8212 headed by W. A. Jamieson.

Programs Initiated

In recent months, both laboratories have initiated studies and training courses to improve efficiency of the secretaries.

To date, 75 women at Sandia Laboratory have taken typing speed drills. Three of the 24 who have completed the drills have exceeded 100 words a minute, and one girl had a speed gain of 28 words per minute. Accuracy, naturally, is considered in computing the speed.

Likewise, 24 girls have completed a training program in the proper format and typing of mathematical equations and chemical equations. These courses please the bosses.

In addition, the girls themselves are "improvement-minded" and during the spring term 90 were enrolled in noon-hour self-improvement courses offered by Technical and Trades Training Division 3132. The majority signed up for Dictation Speed Building, English Grammar Review, and Gregg Shorthand Simplified. These courses please the secretaries.

Initial Training Course

At Livermore all new Q-cleared arrivals in the Secretarial Services undergo a two-week training course in the typing pool where they receive basic instruction in procedures and organization, care and use of equipment, and security practices. After the initial training period, the girls are given general improvement techniques.

"These courses have proved of great help to the girls in the performance of regular duties in the line organizations," said Cecile McIntosh.

The latest special course to be offered, "Typing Skill Development," began June 6 under the guidance of Evelyn Foote (8212-1). It will be given for six weeks and will include a 15-minute typing exercise every day.

Another typing program was offered last month by a representative of IBM and covered the use of all makes of manual and electric typewriters.

Other classes have been taught at Livermore Laboratory. A document control seminar has been conducted by Security Section 8241-1. An informal noon-hour shorthand session, organized by Evelyn Foote, has been taught. An advanced shorthand speed writing course has been presented.

In addition to class work each member of Secretarial Services at both laboratories is issued a copy of the Sandia Corporation Correspondence Guide to assist her in daily office assignments. Guides distributed at Livermore Laboratory contain new Livermore pro-

cedures for handling classified documents.

The secretarial viewpoint on dictation has been presented by Maxine Stephens, supervisor of one of the Secretarial Sections at Sandia Laboratory, to three separate classes of supervisory and staff personnel in the Dictation Training Course. A presentation on how to better use secretarial services recently became a part of the Supervisory Orientation Program.

Standard Procedures

Secretarial Services Division 3126 is working closely with Business Methods Department 4110 in establishing standard procedures for accountability stations. Eventually, a new orientation program for accountability station personnel will be offered.

Another joint project with Business Methods is determining the best possible uniform filing system for Sandia Corporation, and revising the Correspondence Guide to incorporate the Manual for Frequently Used Forms and other office-procedure aids into an overall secretarial reference manual.

To further help the secretaries and typists do their job efficiently, special consideration has been given requests for improved telephone service and equipment. A consolidated report covering 11 problem areas in division offices was compiled, and as a result, necessary changes are now being made.

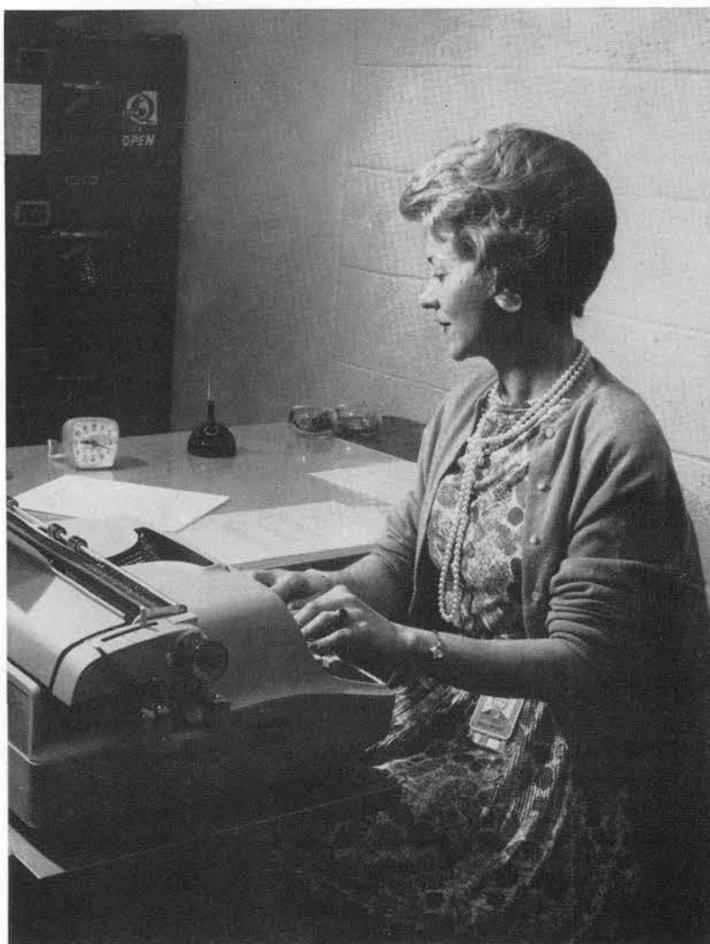
An evaluation of office supplies is also being carried out by the secretaries and typists on a limited scale. Several varieties of type cleaner, rubber stamps, and carbon sets have been distributed in test quantities for evaluation. The inclusion of these as stock items will depend upon their general acceptance or rejection by the girls who regularly use the products.

With Secretarial Services such as Sandia Corporation offers, line organizations gain the advantages of three important factors: flexibility, uniformity, and relief from administrative details.

Girls can be rotated between similar work areas without any paper work. To meet emergencies, such as absences, sudden changes in work loads, or important assignments with time limits, secretarial employees from other offices are used. In addition, unassigned secretaries, stenographers and typists can help out. In the summer months, temporary summer hires fill in during vacation absence of regular employees.



PRODUCT EVALUATION of new-type gathering rack is discussed by (l to r) Lila Ness, Gertrude Byrne (both 3126 section supervisors) and Dean E. Irvin, Secretarial Services Division supervisor. Small number of racks will be distributed to secretaries and typists to determine advantages and disadvantages of item in use.



NADEANE DAVENPORT (8212-3) takes a typing exercise in the "Typing Skill Development" course offered at Livermore Lab.



ON THEIR MARK, new Q-cleared arrivals in Secretarial Services at Livermore Lab get set to go as Dorothy Wiemken (standing) prepares to start

them on a speed typing test. The girls, from left, are Jan Ford, Sharon McManus, and Linda Howe. Dorothy instructs the girls for two-week period.

Welcome Newcomers

July 3-14

Albuquerque	Jack L. Davis	3423
	*Frances Fawver	3126
	Joseph M. Ferguson, Jr.	3423
	Sandra J. Hamilton	3330
	Sandra J. Harris	3126
	Richard G. Illing	7147
	Mary O. Juzang	3423
	Raymond A. Ledogar	6030
	Eddy A. Moore	7212
	Esther E. Morgan	4212
	David L. Quinlan	7124
	Marjorie J. Ready	3321
	Samuel C. Rogers	5432
	Barbara W. Schneider	2561
	*E. Fay Taylor	3126
	Avery M. Torneby	4123
	Carrie M. Townley	2563
Arkansas	Edward L. Burgess, Hot Springs	7522
Colorado	George E. Lamb, Denver	3425
Georgia	Robert C. Holt, Forest Park	7325
	Charles H. Kinsey, Chamblee	7325
Illinois	Jerry A. Kastning, Roselle	7251
	John R. Rosborough, Chicago	2452
	A. Michael R. Triest, Chicago	2751
	David L. Wright, Wheaton	3444
Indiana	Charles T. Coffin, Ft. Wayne	4412
	Earl T. Herzog, Jr., West Lafayette	1113
	George T. Kolesar, West Lafayette	4412
	Joseph G. Ogurchak, Notre Dame	2422
	Terry P. Warnke, Lafayette	7162
Iowa	Edwin E. Hughes, Iowa City	3423
Kansas	John A. Engelland, Lawrence	7184
Maryland	Harry F. Chaney, Hyattsville	1431
Michigan	Kenneth W. Arasim, Dearborn	7323
	*Edmund F. Franzak, Columbia	5121
	Walter J. Roth, Ann Arbor	5131
	Thomas A. Williamson, Houghton	2411
Minnesota	Keith D. Christian, St. Paul	1323
Mississippi	Lewis A. Suber, Jr., State College	2533
Montana	Edwin L. Wolski, Jr., Bozeman	2563
New Jersey	Fred A. Vannatta, Jr., Belvidere	7118
New York	Theodore S. Gold, Troy	7164
	John G. Koehler, Roosevelt	7145
	Ronald F. Soutar, Alfred	1331
	Richard D. Sutton, Endicott	2422
Ohio	Edward J. Barkocy, Dayton	7124
	James M. Hoffman, Columbus	5113
Oklahoma	George R. Ellison, Norman	7161
Pennsylvania	Albert A. Ames, Erie	4412
	Brian C. Bell, Northampton	7325
	William C. Burd, York	4412
	Robert A. Davis, North East	4412
	William Drozdick, Scranton	4412
	W. H. Foeller, Lebanon	4412
	Stephen T. Gladis, Hazleton	4412
	William M. Hanks, Wilkes-Barre	4412
	Robert W. Jones, Juniata	4412
	Edward A. Kociscin, Lansford	4412
	Paul J. Konnick, Kingston	4412
	Donald F. Love, Bloomsburg	4412
	R. David Newcomer, Lancaster	4412
	Laverne E. Romesberg, Dallastown	4412
	John J. Sarkis, McKeesport	4412
	Carl S. Smith, Abington	4412
	William B. Springer, Erie	4412
	Edwin S. Summons III, Laureldale	7124
	Thomas H. Traver, Springville	7325
	Alan N. Updegrove, Shamokin	4412
	Lawrence L. Walko, Wilkes-Barre	4412
	Robert W. Wesnak, Scranton	4412
South Dakota	Jack R. Canon, Brookings	7161
Virginia	*R. Eugene Nix, Blackburg	7232
Wisconsin	John H. Weinlein, Milwaukee	2421
	*Robert S. Frazer, Milwaukee	7253
	Kenneth W. Limestahl, Milwaukee	7223
	Melvin K. Schmuldt, Milwaukee	2422
Livermore New Hires May 16-June 29	*Keith H. Banko, Corvallis, Ore.	8142-2
	Norman A. Boyce, Livermore	8212-5
	William G. Conn, Corvallis, Ore.	8144-1
	*Judith A. Damoulos, Danville, Calif.	8212-3
	Billy C. Ellis, Austin, Tex.	8116-1
	Barry A. Harder, Oakland, Calif.	8114-2
	Betty A. Harris, Sunol, Calif.	8212-3
	Lila V. Hartman, Livermore	8233-2
	Richard M. Houser, Klamath Falls, Ore.	8122-2
	Conrad R. Knopf, Pullman, Wash.	8141-2
	William E. Landt, Downey, Calif.	8142-1
	Robert L. Miller, Chicago, Ill.	8122-2
	Richard M. Newell, Seattle, Wash.	8151-2
	Frank H. Nurkowski, Livermore	8144-1
	*David M. Pierce, San Francisco	8142-2
	*Mary A. Ritter, Livermore	8212-5
	*Paul T. Schoenemann, Berkeley, Calif.	8123-1
	Wilbur L. Schultz, Watsonville, Calif.	8123-3
	Theodore W. Sneddon, Chicago, Ill.	8151-2
	Jerry L. Stewart, Stockton, Calif.	8114-5
	*Gregory L. Young, Corvallis, Ore.	8142-2
	* Denotes rehired	
Returned from Leave	William D. Adams, Carswell AFB, Texas	7251
	Rolyn E. Baack, Ft. Belvoir, Va.	2441
	Samuel M. Bragg, Jr., Ft. Kelly, Kan.	4213
	Margaret A. Crawford	3126
	Britt-Marie Manrow, Livermore, Calif.	8123-2
	Theodora Martinez	3446
	Gloria H. Novak	3126
	John E. Tarpley, Jr.	2544
	Betty Lou Womack	3446

Reps Selected to Organize Coming Lab Horseshoe Tourney

Representatives for the forthcoming Sandia Laboratory Horseshoe Tournament have been chosen to serve in organizing and scheduling individual tournaments in each general organization, Fred Romero (3122-2) has announced. The representatives were selected by their own organizations.

During the month of August, the general organizations will conduct their own tourneys and determine their own champions, who will then engage in the laboratory-wide tournament in September.

Individual trophies will be awarded to the singles and doubles champions and the runnersup.

Supervisory Appointments

ROBERT W. WILLIAMS to Buyer 4325-3, Subcontract Department II.



Purchasing.

Before coming to Albuquerque, he was with Wright Air Development Center in Dayton for five years as chief administrator for a basic research laboratory.

He taught economics and labor relations for two and a half years at the University of Dayton.

Bob received his BA degree in industrial psychology and MA in business administration (management) from the University of Indiana. He was a member of Beta Gamma Sigma, business honorary, and Psi Chi, psychology honorary.

He served five years on active duty in the Army and is now completing 19 years in the reserves.

THEODORE F. SMART to supervisor of Data Handling Section 7312-3, Instrumentation Division.

Ted has been at Sandia nearly 10 years, first in Electronics Components Division and for the past four years in Design and Calibration Section 7311-3.



Previously he worked eight years for National Carbon Company, Cleveland, in electronics research and development and two years for Airborne Instruments Company, Long Island, N.Y., in a similar capacity. For one year he was connected with General Electric's test program in Schenectady, N.Y.

Ted received his BS degree in electrical engineering from Ohio State University. Part of his graduate study was at Case Institute of Technology; however, his Master's degree was awarded at the University of New Mexico this spring.

ROBERT I. BUTLER to supervisor of Shock Test Section 7325-2, Shock and Vibration Division in Area III.



Earlier he was an assistant professor of civil engineering for five years at Vanderbilt University.

Bob received his BS degree in engineering from the University of Illinois, did graduate study in physics at Vanderbilt, and was awarded his MS in engineering mechanics at the University of New Mexico.

During World War II he served three years in the Navy and was recalled for two more years of active duty during the Korean conflict.

J. F. Sladky Elected To Head Livermore Elementary School Board

Joseph F. Sladky was unanimously elected president of the Livermore elementary school board at its annual meeting this month. He is supervisor of Section 8144-1, Project Engineering Division.

In April, "Joe" was elected to a four-year term on the school board after serving an unexpired term last year. He also served one year on a citizens study committee for the Livermore high school.

JIM L. FIFE to supervisor of Administrative Assistant Division 3425.



of Publications Section 3423-1 in May 1958 and a year ago transferred to Public Relations Section 3431-1.

Before coming to Albuquerque he taught English and Technical Writing for six years at the State University of Iowa. The past few years he has instructed several credit courses in Informative Writing and Freshman English at the University of New Mexico.

He received his BA degree in history at Westminster College, New Wilmington, Pa., his MA degree at State University of Iowa, and has finished all of his course work toward obtaining a PhD degree.

During World War II Jim served from 1943-46 in the Army Air Corps.

ALBERT GOODMAN to supervisor of Ferroelectrics and Structural Ceramics Section 1124-2, Coatings and Ceramics Division.

Al transferred to Sandia Laboratory in September 1949 after three years at Los Alamos Scientific Laboratory in the water boiler reactor group.



He worked in Technical Writing, Business Methods, and in Electro-Mechanical Research until 1956 when he left Sandia Corporation to return to LASL to do experimental work and research for his doctorate. A year ago Al returned to Sandia and was assigned to Applied Research Section 7223-3.

He received his BS degree in physics from the City College of New York, and MS and PhD degrees both from the University of New Mexico.

Al is a member of Sigma Xi, honorary society, and the American Physical Society.

CLIFFORD T. SCHAFER to supervisor of Vibration Section 7324-1, Shock and Vibration Division in Area I.



Cliff has been at Sandia since February 1957, working first in component testing, then two years in vibration testing, and for the past seven months in facilities division.

Before coming to Sandia he graduated from Oklahoma State University with a BS degree in mechanical engineering. He is a member of Pi Tau Sigma, honorary engineering society.

R. G. Scharrer to Present Paper on Tracking Systems

R. G. Scharrer (7243-1) will present a paper at the 1961 Technical Symposium of the Society of Photographic Instrumentation Engineers in Los Angeles, Calif., Aug. 7-11.

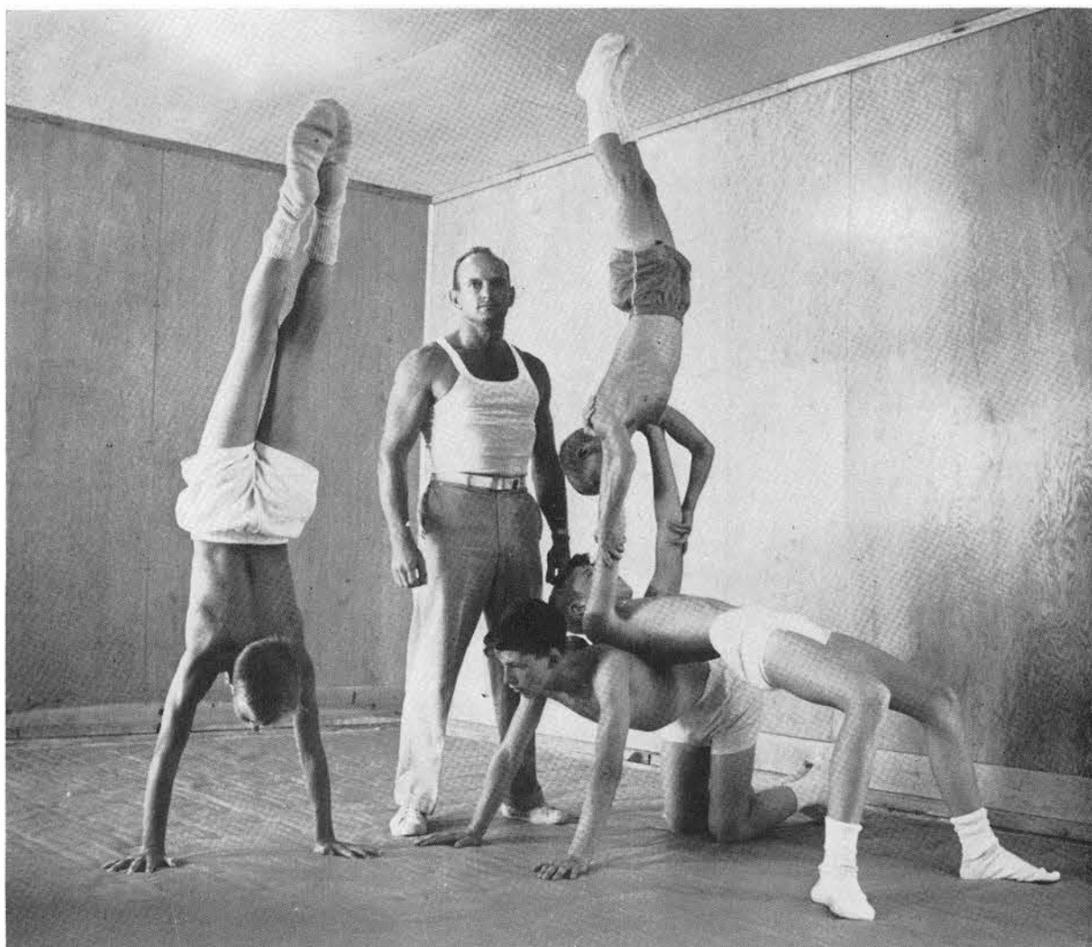
Title of his speech is "Automatic and Programmed Tracking Systems for Optical Instrumentation."

Adhesives Talk Given By N. J. DeLollis

N. J. DeLollis (1112-2) spoke at the 13th annual summer meeting of the Truck-Trailer Manufacturers' Association, Inc., last week in Hot Springs, Va.

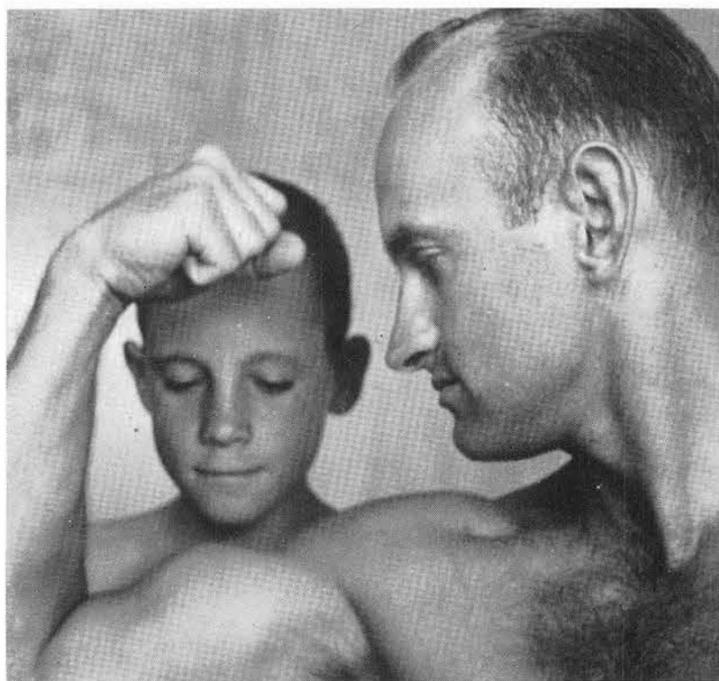
Subject of his talk was "Adhesives As Used in Metal Fabrication."

Jim's first job at Sandia after he began work in October 1956 was as a tech writer in the Technical Information Division. He became supervisor



NEIGHBORHOOD KIDS make Frank Treon's garage-gymnasium their headquarters. Here, with Frank's coaching, they perform an improvised pyramid. Stunt is part of physical fitness course.

Frank Treon Doesn't Like to Show His Muscles--He'd Rather Teach Kids



FRANK TREON flexes bicep for small friend.

13-Vol. Correspondence Course on Automation is Available for Study

Technical and Trades Training Division 3132 has been presented a complete set of 13 volumes of a Capitol Radio Engineering Institute correspondence course entitled "Automation and Industrial Electronics Engineering Technology." The home study program was donated to the Z Branch Library, maintained by Division 3132, by W. N. Wyer, local C.R.E.I. representative.

Course material is designed particularly for engineers and technicians who wish to advance in the field of industrial electronics and automation.

The comprehensive list of topics outlined in the course include such titles as Magnetic Circuits, Introduction to Servomechanisms, Error-Detecting Devices, Basic Quantum Theory, Error-Correcting Devices, Analog and Digital Computers, Data Processing, Probability and Statistics, Information Theory and Telemetry.

Persons interested in determining the exact scope and depth of the course material may arrange to inspect the sample volumes by contacting Mary Williams (3132-2), ext. 31247, in Building 813.

Joe Ozmina Keeps Picnic Grounds to Help Underprivileged

Joe Ozmina (4632-2) calls "The Villa Santa Maria" in the Sandia Mountains his second home. It is located one mile from Rt. 66 on North 10 (Sandia Crest road).

Several years ago he volunteered his services to help develop and maintain The Villa, a seven-and-one-half acre private picnic ground. Joe also handles reservations for the park, which is available to any interested group. A small fee is charged which goes into a fund to provide a camp for underprivileged boys.

Recreational facilities at the park now include tables, a baseball diamond, horseshoe pits, and a volleyball court. Modern rest rooms, a kitchen, and living quarters for the Catholic priest who owns the property are buildings on the property. Eventually, dormitories will be built for the boys' camp.

Joe would be glad to answer any questions about the park, and can be contacted at AX 9-3665.

Frank Treon barely made the physical requirements for a Sandia Security Guard. He stands five ft. eight in. tall and weighs 160 lbs. sopping wet. Recently, while working out in his garage gymnasium, Frank tossed a 200-lb. man across the mat like a sack of potatoes.

"It's a matter of knowledge," Frank says, "and muscular coordination. Anybody could do it."

Frank has been a Sandia guard for 10 years. Previously he had been a miner, diamond cutter, painter, advertising salesman, and Army MP, but has always been an advocate of physical fitness.

In his spare time, Frank has been a wrestler, weightlifter, and physical fitness instructor. He has presented exhibitions to schools and organizations and has wrestled professionally.

"That was a long time ago," Frank says. "Now I'd rather teach kids the art of gymnastics."

This keeps Frank busy during his off-hours. Since the completion of the gymnasium in his garage, it has become the headquarters for the neighborhood kids. "I give them a workout about every day," Frank says.

In addition, Frank helps Scout groups and student groups of all kinds with physical fitness instruction. He has taught jujitsu to policemen, deputies, military personnel, and other adults.

"Physical ability and development give an individual self-confidence," Frank says, "and this confidence is carried over into other areas. I think people are happier leading a strenuous active life, both mentally and physically."

In his own case, physical fitness became a necessity.

"My name was Francis and I lived in a Pennsylvania mining town," Frank says. "I took a terrible ribbing. Then when I was 10 years old, I was run over by a truck, spent 14 months in a cast with broken pelvis and legs. It took two years on crutches to learn to walk again."

Now Frank can hold a hand stand for more than an hour, lift more than 200 lbs. over his head, or run through a series of intricate gymnastics from the overhead bar.

"These are showman tricks," Frank says. "The important thing is physical skill and coordination. This is what I try to teach the kids."

Sandia Service Awards

15 Years



Ernest L. Arterburn
4253
July 23, 1946



Walter R. Rosenberg
4360
July 26, 1946

10 Years

July 22-Aug. 4

Hermes Chavez 4624, Raymond A. Humes, Jr. 3242, Albert I. Martin 4541, Benjamin F. Lopez 4251, Vincent G. Redmond 7185, Robert R. Evans 7524, L. J. Underwood 4212, Santiago M. Aragon 4253.
Owen L. Buck 4132, Joy R. Connedy 4131, Alfred Herrera 4631, Henry G. Laursen 7251, Manuel A. Romero 4575, James T. Knott 4514, Santos S. Quintana 4513, Virginia D. Haley 4131, Harold E. Houts 2451.
Mary Ann Hunter 3241, Kenneth L. Kemp 7224, Lila Mae Ness 3126, Rosalio A. Silva 4573, Pierre Chevalier 7214, Gwinn H. McCarty 3242, Walter G. Self 4221, Bruce R. Higgins 4221, Lloyd K. Hungate 7513, James T. Brown 7513.

Magazine Recognizes Quality of Text by Hamilton H. Mabie

The July 3 issue of **Product Engineering** magazine lists the basic engineers' bookshelf which claims to be an extensive bibliography for the design engineer. Among the books listed is one co-authored by H. H. Mabie, supervisor of Advanced Mechanical Design Division 1333.

The book, **Mechanism and Dynamics of Machinery**, has been selected as a text in Mechanical Engineering by more than 100 colleges and universities in the United States and other countries.

The textbook was written while Mr. Mabie was an associate professor of mechanical engineering at Cornell University and was published in January 1957.

Helmet Saves Life Of Cycle-Riding Gordon Greene

"The old gag about landing on your head being a good thing was true in this case," Gordon Greene (1312-2) was saying as he fingered the ridge of deep scratches on his motorcycle helmet.

On July 5, while riding his motorcycle, Gordon was struck by a car from the side. The impact whirled the cycle around and tossed him over the hood of the car.

"I landed on my head and hands," he said. "The cycle was demolished and I could have been."

Gordon gives credit for his survival of the accident entirely to the helmet—a strong, light, fiber-glass headpiece.

Gordon has been riding his cycle to work for about three years and wearing the helmet for the past two and a half years. "Now, I'm even more convinced that protective safety equipment is a necessity," he said. "I've worn safety shoes for years and I will never ride a motorcycle without a helmet."

This was Gordon's first accident in either automobile or motorcycle.

JULY 21, 1961

LAB NEWS

PAGE SEVEN



CHAMPIONS of Sandia Laboratory's 1961 Tennis Tournament are Joe Teague (2642), left, and Charlie Chavez (2642). Charlie defeated Joe for the singles title and then the two men teamed to beat C. H. Bidwell (1421) and Stan Urevitch (4212-2) for the doubles championship. Some 32 Sandians took part in the tourney.

Fortune Visits

Two members of Division 1424 had a lucky week. William F. Nielsen won a three-day vacation at the Cowles Ranch near Glorieta for his entire family. Robert A. Leighinger copped first prize for the largest fish caught in New Mexico during a period of two weeks.

SHOPPING CENTER

CLASSIFIED ADVERTISING

Deadline: Friday noon prior to week of publication unless changed by holiday.

RULES

1. Limit: 20 words
2. One ad per issue per person
3. Must be submitted in writing
4. Use home telephone numbers
5. For Sandia Corporation and AEC employees only
6. No commercial ads, please
7. Include name and organization.

FOR SALE

- STEPPING STONES, concrete, 2 x 8 x 16 inches, green, white, 45 stones, 10 cents each. Weber, DI 4-1833.
- EXERCYCLE, 2-speed, 2 yrs. old, used 1 yr., terms; two aluminum chassis. Frame, AX 9-8195.
- SMITH AND WESSON K-22 revolver w/ holster, \$50. Moyer, AX 8-0049.
- VACUUM CLEANER, \$10; tree-type clothes line pole, 1 yr. old, \$10. Williams, AX 9-1631.
- GE ELECTRIC RANGE, 40", 4 yrs. old, \$60; Frigidaire refrigerator, 6-cu.-ft., \$40. Newman, 268-0314.
- KENMORE 30" gas range w/griddle, wide oven, timer; Blizzard 330 portable air cooler, \$25; Wizzard evaporative type car cooler, \$8. Amos, 298-4470.
- '50 MERCURY Club Coupe, \$250; 12-volt car cooler, \$20. Wilson, AX 8-0049.
- '55 CUSHMAN Huff scooter, needs mag-neto, \$60. Winkeljohn, AX 8-1592.
- KITCHEN TABLE w/six chairs, extension board, \$85; walnut vanity, center mirror, 2 side mirrors, \$15; rose club chair, \$10. Farrell, AX 9-4938.
- ROTARY POWER MOWER, 24", Briggs and Stratton engine, \$25. Hager, AX 9-1939.
- S&W M1950 target pistol, 44 spcl. w/ Heisner fast-draw holster, \$75. Stone, AL 6-2495.
- SEARS CHAIN SAW, 20", 5 hp, used three winters. Carmichael, 268-6314.
- BUGKART 'A' w/MC-5 engine, new, \$125; Stinger w/MC-10, \$250. Edwards, AX 9-5496.
- INFANT CAR SEAT; playpen; misc. baby furniture; houseplants; 3-bdr. house in NE heights. Jensen, AX 9-7303.
- KENMORE WASHER, wringer type, \$35. Janney, AM 8-8074.
- SECTIONAL, brown nylon, 3 pieces, \$55; round coffee table, 2 end tables, \$25. Martinez, DI 4-6994.
- SUPRO, dual tone electric guitar and amplifier, \$100. Sloane, 1218 Christine NE, AX 9-3546.
- MOSSMAN-BALTIMORE, 4 1/2 FHA, 3-bdr, 1 1/2 baths, ac, forced-air heating, carpeted, sprinklers, screened patio, water softener. Swing, AL 6-6403.
- '61 CORVAIR Greenbrier sports wagon, R&H, automatic transmission, less than 5000 miles. \$2850. Stickler, AL 5-3039.
- '56 1/2-ton Chevrolet Carryall truck, \$150 under retail, 4-speed, 6-ply nylon tires, trailer hitch, lights, other extras. Eiler, AL 6-4015 after 5 p.m.
- '22-COLT Sport Woodsman w/holster \$40; Webley 45 ACP, Mint, w/holster, ammo, \$20; Mossberg 16-ga. w/ammo, deer sight, \$28. Fairbanks, 304-A Texas SE.
- PORTABLE RECORD PLAYER w/new ASTIC Hi-Fi cartridge, \$15. Simpson, AX 9-2266.
- 3-BDR MOSSMAN, 1 1/2 baths, 4 1/2 FHA, \$77/mo., priced for quick sale. Heineman, 2905 Palomas NE, AL 6-6387.
- TV, CONSOLE w/full-length doors, RCA, 17", \$50; Universal ironer, \$40. Keever, 1501 Glorieta NE, AX 9-1334.
- COMMUNICATIONS RECEIVER, National NC 109, \$100 or best offer. Loomis, 255-9470.
- '56 FORD station wagon, V-8, std. shift, OD, \$550 cash, \$850 terms. Granvill, ext. 2-4239.

BICYCLE, girls 26" Schwinn, \$25. Lathrop, AL 5-1901.

'59 AUSTIN HEALEY deluxe, 4-seater, OD, wire wheels, fiberglass hardtop, R&H, 18,000 miles. Hitchcock, AM 8-6531.

14' FIBERGLAS BOAT, 35 hp motor; trailer, fully equipped. Ewing, 1303 Quincy NE.

'55 BUICK CENTURY, blue and white, R&H, July Blue Book \$600, sell for cash \$475. Anderson, AL 6-0346.

ONE-BAG cement mixer; small mixer; trade Hardwick gas range for posthole digger or chain saw. Vilella, AX 9-7915.

GE AUTOMATIC WASHER, \$50. Brian, AX 8-1761.

3-BDR MANKIN, corner lot, walled yard, borders Los Altos Park. Long, AX 9-7969 after 5 p.m.

AMERICANA encyclopedia, 35 vols., w/ bookcase, \$110. Radman, AM 8-8970.

36' TRAILER, modern, \$1500; '60 model refrigerator; Sears stove and dishwasher; maple trunkle beds and chest. Kennedy, AX 9-7126.

EVAPORATIVE AIR CONDITIONER for 6-volt electrical system, \$10. Shinn, ext. 49153.

PICKUP, 1/2-ton Ford V-8, custom cab, R&H, Fordomatic, overloads, rear bumper. Meikle, AX 9-4640.

LINHOFF 2 1/2x3 1/4 and Leica 111F cameras w/accessories; S&W 38 cal. Masterpiece, Colt 45 cal. w/22 cal conversion kit; Winchester 75 target rifle/Unertl scope. Strauss, 299-5501.

REAL ESTATE CONTRACT by owner, \$4800, 25% discount, located in Five Points Road SW, paying \$50 per month, 6% interest. Lopez, AX 9-0941.

ACCORDION, Americano w/case, 120 base, Italian made. Heath, AL 5-5418.

CHIHUAHUA puppy, black, AKC, 2 months old. Spray, AX 9-0412.

3-BDR, Queen of Heaven District, 1 1/2 baths, built-in oven, range, air conditioning, sprinklers front and back, carpeting, drapes. Coats, AL 6-7012.

ROPER GAS DRYER, used one year, \$125. Peckum, AL 6-3363 after 5 p.m.

NORGE refrigerator, \$65; Maytag auto. washer, \$45; '53 Chevrolet truck, \$395; gas range, \$45. Gatlin, 255-5126.

HALL RUNNER, 20' wool, beige carpet w/ rubber pad. Miller, AM 8-5992.

3-BDR, 1 1/2 baths, dining room, utility w/ 220v, built-in range, Spanish fireplace, vigas, sprinklers, landscaped, walled, \$16,000, no qualifying. Hewitt, AM 8-2563 or AM 8-2822.

'50 JEEPSTER, R&H, OD, new tires. Kane, AL 5-2240.

SWING SET, alider and two swings, \$10. Vandi, 1843 Cagua Place NE, AL 5-0685.

BY OWNER, no qualifying, 3-bdr, forced-air heat, covered patio, near Sandia, \$500 down, payments \$104 per month. Karels, 298-4948.

3 BDR, 1 1/2 baths, 2-car garage, workshop, hw floors, fireplace, large covered patio, NE location, must sell soon. Barker, 1101 Parsifal NE, AX 9-2365.

DINETTE SET, Haywood Wakefield solid hardwood, natural finish, 5 chairs, extension, \$60; corner table, solid hardwood, natural finish, \$25. Whittaker, AX 9-9172.

'56 CHEVROLET 4-dr hardtop, V-8, \$850; steel w/dow w/glass and screen installed, 56" wide x 41" high, \$25. Cardova, AX 9-3460.

24" MUNTZ TV, table model w/stand, best offer. Baling, AX 9-1346.

COMPLETE OFFICIAL N.M.O.A. referee's uniforms, basketball, football, shirts, pants, jacket, shoes (fb 10E), (bb 9 1/2), etc. Blagg, AX 9-8624.

BOWLING BALL, 16 lb., bag and shoes, 9 1/2; Cleveland '57 gas range; Westinghouse refrigerator w/freezer top. Bewley, AX 9-2587 after 6 p.m.

NURSES uniforms and ladies wear, sizes 14 and 16; green fiber rug, 9 x 12; blond formica-top table, solid brass legs, 33 x 50". Davis, AX 9-3384 before 3 p.m.

EDEN BILTMORE, 3-bdr, 2 baths, family room, fireplace, built-in bookcase, walled, at original cost, assume mortgage, save closing costs. Davis, AX 9-9079.

NEXT DEADLINE FOR SHOPPING CENTER ADS Friday Noon, July 28

- HOME, exclusive Vista Larga addition, dead-end court, 3-bdr, 2 bath, landscaped, wool carpets, drapes, refinance, assume existing 4 1/2% loan. Illing, AL 6-9768.
- CAMERA, Argoflex, 4.5 lens, shutter speed 200, w/case; Weston light meter w/case; Speedgun flash attachment. Henfling, AL 5-1746.
- EXPOSURE METER, Norwood director, Color-matic, \$20, cost \$40 new. Manson, AM 8-5001.
- NEW TIRE, Goodyear, wsw, tubeless, 7.60 x 15; White treadle sewing machine, best offer. Gibbons, AX 9-2863.
- 3-BDR, den, carpeting, walled, landscaped, close to Bases, \$13,900. Netz, AX 9-7036.
- POLAROID CAMERA, model 80A, w/wink light, \$45. Crumley, CH 2-1207.
- '59 VOLKSWAGEN sedan, one owner, 17,000 actual miles, serviced to VW specifications by VW dealer, leather upholstery. Spahr, DI 4-7253.
- '58 CHEV, 9-pass. station wagon, all power, air conditioner, window screens, new engine, \$1395. Dale, AM 8-9543.
- MAGNAVOX STEREO AM-FM radio, 6 speakers, Danish modern walnut cabinet, \$300. Brown, AX 9-3111 after 5 p.m.
- GE WASHER, automatic, \$50. Petrini, AX 8-0433.
- BLOODHOUND, 10 months old, male, AKC registered. Lawrence, AX 9-7246.
- AIR COOLER, portable, Gaffers and Sattler, used one season, \$25. Zottnick, AX 9-6339.
- BEAGLE PUPS, AKC registered, field and show championship breeding, \$35. Johnson, AX 8-1011.
- '56 LAMBRETTA motor scooter, recently overhauled, \$100. Percy, AM 5-0127.
- SMALL HOUSE, NE heights, \$4975, \$50/mo. Evans, CH 2-3736.
- 3-BDR, 1 1/2 baths, frame stucco Ashcraft home, including carpeting, drapes, many improvements, FHA appraised value. Gasser, AL 5-4562.
- DINING ROOM TABLE, dark mahogany, Duncan Phyfe w/two chairs, \$50. Gasser, AL 5-3604.
- 3-BDR, den, fireplace, large kitchen, range, dishwasher, double garage, \$4500 cash to existing loan, terms. Knauth, 9524 Shoshone Rd. NE, AX 9-9138.
- 20" BOYS BIKE, Monarch, \$10. McIlroy, AX 9-4977.
- BUNK BEDS, w/link springs and mattresses, \$30; English bicycle, \$20. Summers, AX 9-4674.
- TRAILER, all-steel, one-wheel, luggage, new tire. Whitford, AX 9-4271 after 5 p.m.
- '59 TRIUMPH STATION WAGON, \$575; '357 Colt Python, new, \$95; 38 Spl S&W M&P 2" barrel, new, \$55. Hill, AM 8-0417.
- PIANO, blond Baldwin Acrosonic Spinnet, \$695. Neun, 3600 Parsifal NE, AX 9-9188.
- 30.06 bolt action w/scope, sling, \$85; Magnus chord organ, \$50. Sharp, AX 8-2702.
- FREE, three kittens, half Siamese. Bowen, AX 9-1810.
- 2 STEEL WINDOW FRAMES w/panes and screens, 52 x 38, 25 x 38; venetian blinds, 72 x 36; 10' drain, best offer. Gomez, AL 6-1584.
- OR 4 1/2 ACRES with 2-bdr house, chicken houses, sheds, fenced pasture, close to Barcelona Bridge. McDonald, 298-3321.
- '50 CHEVROLET convertible, everything works but the clock, make offer. Patterson, AX 9-5152.
- ANTIQUE ebony square baby grand piano with stool, needs work, \$65 or best offer. Silva, 1720 Wilmore Dr. SE, CH 3-0191.

TWO CRYPTS, Sunset Mausoleum for 10% less than present selling price. Hall, AL 6-7282.

AUTOMATIC WASHER, Westinghouse Laundromat, \$30. Elliott, 816 Quincy NE.

'53 4-DR CHEV, \$200; fold-out camping trailer, \$150. Wilson, AX 9-8864.

WHITWORTH box and socket wrenches, foreign car tools and parts. Culver, 268-6093.

MOTORCYCLE, 1956 Triumph, 650cc, helmet and tools. Looney, AX 8-2123.

FORD SPECIAL, custom body, 54 OHV mill, overdrive, floor shift, good rubber, low mileage. Garcia, 1626 Inez Dr. NE, AX 9-1277.

BREAKFAST SET, 5 pc. maple, extra leaf; yellow formica table top and yellow plastic upholstered chairs, \$45. Karels, 11608 Bellamah NE, AX 9-7764.

GE REFRIGERATOR, 2 yrs. old. Love, 268-4035.

FRIG-KING auto air conditioner, \$50; GE 8 cu.-ft. refrigerator, \$50; Thor wringer washing machine w/timer and pump, \$40. Mecklenburg, DI 4-6793.

'52 MERCURY, rebuilt, low mileage, customized, Merc-o-matic, R&H, ww carpet, floor mats, upholstery good, \$375. Foster, AM 5-0069.

21" TV console, \$40. Woodley, AM 8-6871.

TWIN REFLEX CAMERA, automatic, Minolta, 2 1/4"x2 1/4", w/flash, \$70. Dankworth, AL 5-7927.

CONN ORGAN, original cost \$2500, will sell for \$850; typewriter, standard size, \$35; Cadillac, '57, factory air, \$2095. Dixon, AX 9-6886.

AKC registered Pekingese pups, one male, one female. Keyser, AL 6-1285.

'55 PLYMOUTH V8, stock shift w/OD and heater, needs two tires, \$300. Willingham, AL 6-4098.

WHITE LACE formal, size 9, worn once, \$25. Walker, AM 8-1684.

3 BRM HOME, attached garage, walled yard, \$11,000, \$350 down, trade for late model car or pickup. McWherter, 303 Gen. Patch NE, AX 8-0879.

26 ACRES in Manzano Mountains, sell all or part; 3 brm, 1 1/2 bath Roberson Home at GI appraisal. Robards, AL 5-8410 after 5.

FOLDING WHEEL CHAIR, \$65. Miller, AL 5-8993 after 5:30.

TAPE RECORDER, German make, \$75. Garcia, CH 7-8268.

RADIO-PHONO, portable, \$30; blond corner step table, \$7.50; two-position baby stroller, \$4; 8-place settings Winfield China, \$150. Rueb, AX 9-4805.

RESIDENTIAL LOT, 75 ft., Village Manor addition Espanola NE, paving and utilities stub in. Durant, ext. 29272 after 5.

CRIB, Storkline w/Kant Wet mattress, Sanchez, AM 8-5427.

OUTBOARD MOTOR, 12 hp Wizard, w/accessory tank, \$90. Moore, 1715 Tamasa NE.

3 BDR ROBERSON, den, 4 1/2% GI, owner selling, \$16,500 w/\$1,000 down, willing to bargain. Heinz, AX 9-4821.

HAND MOWER, \$10. White, 9713 McKnight NE, AX 9-6411.

DINING ROOM TABLE, drop leaf, w/cover pads, 4 matching chairs, \$50; Stauffer reducing table w/automatic timer, accessories, \$150. Metzger, ext. 25298.

APA/10 Panamonic adaptor, 60 cy. input, \$40; 25 watt dual channel public address and phono amplifier, \$15. Stephenson, AX 9-3914.

WANTED

TRADE Roy Rogers cowboy costume, new, still in box, red, boys size 12 for 1 book trading stamps. Mitcham, AX 9-8425.

UPRIGHT FREEZER, second-hand. Treat. AX 9-7182.

HOMES for kittens, 7 wks. old, housebroken, always hungry; mama indiscrete Siamese, daddy black and white visitor (obviously). Schultz, AX 8-2731.

ELDERLY LADY, live in, light housekeeping. Rodokovich, AX 9-3123, call in p.m.

RIDE from around 3500 block Lomas NE. Perea, AM 5-0861.

HOME for two sets of twins, Tiger and Tortoise (cats, that is), six weeks old, housebroken. Kelly, AL 5-7226.

USED 11' upright food freezer. Moritz, AL 6-2362.

RIDE from vicinity of Menaul and Eubank to gate 3 or 4. Hurley, AX 8-5250.

HOME for untrained 1 1/2 year old bird dog, good with children, but too fond of chickens, male. Frauenglass, 345-0119.

WOODEN DESK with provision for a typewriter. Hill, CH 3-3493.

HOMES for ball-playing, bird-watching, house-broken kittens. Johnson, AL 5-8851.

RIDER to the vicinity of Columbus, Ohio or Pittsburgh, Pa.; leaving Aug. 4. Closser, AX 9-8933 after 5:30 p.m.

HOME FOR stray, calico kitten, 6-8 weeks old, affectionate, gentle with children, housebroken. Bode, AM 8-2157.

PERSON to share driving from Northwest Mesa to vicinity of Bldg. 800. Alpaugh, CH 7-4505.

PERSON to share driving from neighborhood of Central and Rio Grande to vicinity of Bldg. 800. Cockerleas, 242-8514.

WOMAN TO IRON for working couple, SE area. Burns, CH 2-2407 after 5 p.m. and week-ends.

FOR RENT

UNFURNISHED 2 bdr house, w/w carpeting, ac, redecorated, venetian blinds, screened patio, walled yard, garage, water and garbage paid. Tillman, 708 Arizona SE, AL 5-6292.

2-BDR HOUSE, unfurnished, all hardwood floors, drapes in lr, curtains in kitchen, \$70. Arvidson, AM 8-5128.

FURNISHED HOUSE, 217 Garcia NE, \$55 per month, water paid. Evans, CH 2-3736.

2-BDR APT., unfurnished, stove, ref, air conditioning, washer rough-in, \$65. Milligan, CH 2-2959.

6 ROOM, 1 1/2 bath, carpeted, stove, washer and dryer rough-ins, walled, grass front and back, shade trees, \$115. Swain, 298-5018.

COUNTRY HOME, 2-bdr., modern w/garage, horse barn, chicken house, about 40 min. from Base, only \$45/mo. Dixon, AX 9-6886.

1 BRM APT., \$50 month, 617 Lovejoy SW. Garcia, CH 7-8268.

HOUSE TRAILER spaces in Sandia Mountains; if desired, build your own and live rent free. Souder, BU 2-3274.

LOST AND FOUND

LOST—Sterling silver floral design cuff link, silver ball earring, gold frame Ray Ban sunglasses, black rim sunglasses w/ rhinestones, grey metallic frame glasses, silver bangle bracelet, Bank of New Mexico check book. LOST AND FOUND, ext. 26149.

FOUND—Black tobacco pouch, tri-focal glasses in brown clip case, keys in brown case. LOST AND FOUND, ext. 26149.

FOR SALE AT LIVERMORE

WARN HUBS for a jeep, bolt-on type, \$10; jeep tow bar, \$10. Lelanchon, HI 7-2307.

NATIONAL "SIXTY SPECIAL" short wave receiver, \$50. Hoffer, ext. 2347.

EDIPHONE ELECTRIC GUITAR, single pick-up, three input amplifier. Moore, ext. 2291.

SKIN DIVING EQUIPMENT: Valt aqua lung, regulator; 25 lb. weight belt; divers float; wet suit; Valt depth gauge; make offer. Baldwin, HI 7-4553.

MONTGOMERY WARD REFRIGERATOR, \$40. Nurkowski, HI 7-0919.

'55 JAGUAR Mk 7, four-speed transmission, electric overdrive, new clutch, recent valve job. Trade for Volkswagen, Kombi, or MG. Givens, HI 7-0190.

WANTED AT LIVERMORE

ONE-WHEEL TRAILER. Givens, HI 7-0190, after 5.

LOST AT LIVERMORE

BOY'S SILVER RING, initials J. M. L. Lost at LRL Swimming Pool. Call M. Lost and Found, ext. 2252.

Summertime Not Only Vacation Time It Is Also Bad Time for Accidents

Summertime is vacation time. With summer comes swimming, boating, weekend excursions, camping, and other outdoor exercises. Summer is also the time when do-it-yourself handymen blossom out on weekends.

These are all fun activities; but, even in fun, tragic accidents occur.

Western Electric Co.'s medical organization recently published statistics on off-the-job injuries of their employees. Following are excerpts describing how accidents happened.

Two men, both in their early 20's, died under a tractor semi-trailer rig when their car, traveling at an estimated 80 to 90 miles an hour, slammed into it broadside from a side road. They died needlessly, victims of their own reckless speed and failure to observe traffic laws.

Firearms

In Chicago, a man was killed, ironically, while he was demonstrating to his children how to handle firearms safely. He forgot to check the firing chamber and the gun went off when it slipped from his hands and struck the edge of a table.

Failure to execute the proper hand-signal before braking to a sudden stop resulted in a painful "whip-lash" neck injury to a woman when a panel truck slammed into the rear of her car on a suburban feeder route in Omaha, Neb.

A man lost his footing while re-

pairing a porch roof on his home and fell 16 feet to the sidewalk below, fracturing his left foot in three places and partially crushing a lumbro-sacral vertebra.

A broken ankle resulted from a too-ambitious slide into home plate by a participant in a neighborhood softball game.

A man returning to his temporary job location after a weekend at home failed to negotiate a curve at night on a rain-slick highway. His car slammed broadside into a tree. He suffered a broken thigh, several fractured ribs, lacerations, and concussion.

Tire Changing

A routine tire-changing chore turned nightmare for a motorist when he attempted to retrieve a spare tire as it slipped from his grasp while lifting it out of the luggage compartment. The result: a torn back ligament.

Do-it-yourself tree-pruning proved to be an expensive and painful experience for one man. He lost his balance and fell more than 20 feet to the ground, sustaining a fractured left hip, a dislocated left shoulder, cerebral concussion, and lacerations.

Unfortunately these stories go on and on and on. Observance of traffic laws and simple safety rules would have prevented all of these accidents.

Also, unfortunately, summer seems to be a time when accidents are easier.

New Sandia Lab Ambulance Ready for Emergency Service

For the first time Sandia Laboratory has an honest-to-goodness ambulance (rather than a converted station wagon) and it is a beauty!

The special custom body is on a standard Pontiac Bonneville chassis. There is one padded stretcher and three collapsible stretchers, which are stored under the floorboards. Special fittings allow two of these to be suspended from the ceiling when all four are in use.

Other equipment includes built-in oxygen equipment, two air conditioners, and a radio alongside the driver's seat which, at Sandia Laboratory, is set on the Patrol Division frequency. The Patrol Division provides a driver for the ambulance on a 24-hour basis. After normal working hours the patient is taken directly to Bataan Memorial Hospital for emergency care.

The former ambulance has been moved to the reactor site in Tech Area III. It will continue to be used on a stand-by basis or when more than one call must be answered. The Medical Organization also has an arrangement with the Sandia Base Hospital for providing additional emergency service.

Paul Muench to Play for Club's Dinner-Dance

Coronado Club's monthly buffet dinner-dance on Saturday, July 22, will feature the music of Paul Muench and his orchestra. Buffet lines will be open from 6 to 8 p.m., and dancing will start at 9. Cost for the entire evening's activities is \$2.60 for members, \$3.60 for guests.

Lloyd Pond's musical group will play for the Saturday Night Dance on July 29 from 9 to 1. Tickets for the dance cost \$1 for members, \$1.50 for guests.

Family Nite free movie on Sunday, July 23, is "Lawless Breed." Kids and grownups alike will be served free cokes and popcorn during the movie which starts at 6 p.m.

Continuing with live music from 5 to 8 on Friday evenings, the Coronado Club has scheduled Tommy Kelly's combo tonight, and Max Madrid next week. Following social hour from 4:45 to 6:15 p.m., a \$1.75 buffet is served until 7:30.



SHIP RIGGING is discussed by model shipbuilders Alyce Loveless and Gene Lopp, both of 8114-3. This model of the Cutty Sark, a 19th century clipper ship, took Alyce four months to build in spare time. Gene spent about the same time on his model at right.

Building Model Ships Gives Livermore Sandians Intriguing Sparetime Hobby

"It looked like fun," said Alyce Loveless (8114-3), speaking of the model sailing ships in a Bay Area store window. "After I bought a kit and built the model, I knew I'd found an exciting, relaxing hobby."

Since that first meeting with model ships two years ago, Alyce has built four large scale models.

"One model takes about four months or more to complete in your spare time," Alyce said. "The time depends on how detailed you get and what kind of rigging you use. The simplest way to rig a model ship is with 'standing rigging,' which simulates the ropes, chains, and other equipment of the ship standing in port. If you get into 'running rigging,' where sails and other details are included, you could spend a year or more on it."

Another Livermore Lab model shipbuilder is Gene Lopp, also of 8114-3. "My interest in model ships began with a desire to escape TV," Gene said. "It has since developed

into an intriguing, enjoyable pastime."

According to Alyce and Gene, model shipbuilding has seen an upswing in popularity the past few years because of the availability of reasonably priced scale models of historic sailing vessels. Most models, cast primarily in plastic, run from \$10 to \$12. Completed models are valued from \$50 up.

"It's surprising the interest that a few ship models create among friends and visitors," said Alyce. "We've had more people study the intricate rigging and remark about the tiny details."

"My only objection to the hobby," said Gene, "is that my wife is so pleased with the ship models she wants to redecorate the whole living room to match."

IRE Section Elects Officers for Year

New officers for the 1961-62 term have been elected by members of the Albuquerque-Los Alamos Section of the Institute of Radio Engineers.

Serving as chairman will be Richard K. Moore, head of the University of New Mexico Electrical Engineering Department and a Sandia consultant.

Sandians elected are Allen B. Church (1431-3), vice-chairman, and Thomas L. Pace (7223-2), treasurer.

AEC Calls for Bids On Tonopah Project

The Atomic Energy Commission has advised contractors that bids will be invited about July 27 for range development work at the Tonopah (Nev.) Test Range. Bids are scheduled to be opened Aug. 24 in the county courthouse in Tonopah.

The project will include construction of a 4000-sq.-ft. concrete and masonry building, a frame addition to an existing building, and nine pre-fabricated metal buildings with a total of about 1,240 sq. ft. The job also includes about 7.4 miles of asphalt surface road, approximately 24.2 miles of gravel-surfaced road, water storage reservoir and fire protection lines, about 84,000 sq. yards of gravel-surfaced air field landing strip area, and utility facilities.

Murl B. Moore (4543-3) is Plant Engineering Department project engineer.

Lab All-Stars to Open Inter-Base Softball Tourney

The 1961 Annual Inter-Base All-Star Softball Tournament, to be played between Sandia Laboratory, Sandia Base, Manzano Base, and Kirtland Air Force Base, will be held at the KAFB Bowler Field on Aug. 7-10. Games will be played in a double-elimination arrangement, with the first game — between Sandia Lab and Manzano Base — scheduled for 6:30 p.m., Aug. 7. Sandia Base will play Kirtland Aug. 7 at 8 p.m.

Other tournament game times are as follows: Aug. 8, 6:30 and 8 p.m.; Aug. 9, 7 p.m.; and Aug. 10, 6:30 p.m. and 8 p.m. (if necessary).

E. F. Massey (7512-1) will participate as one of three umpires for the tournament.

The Sandia Lab All-Star selection includes: V. F. Arroyo (4543-1), B. T. Baur (7322), W. N. Caudle (7131-2), F. C. Comiskey (6021-1), H. F. Filusch (7124-3), J. K. Fjelseth (3461), R. A. Govig (2544-2), R. A. Hanson (7523-3), J. L. Hay (4253-2), C. H. Hughes (4412-1), J. M. Kelly (2632-2), R. C. Lawhill (1312-1), C. D. Longertot (1432-2), J. A. Lovato (4411), D. L. Mangan (1411-3), C. K. Rudy (4543-1), L. W. Schulz (1331), R. R. Smith (2544-3), L. O. Tabor (4412-2), A. C. Taylor (4253), and T. S. Trybul (7183).

Team manager is Frank Duggin, Jr. (4314). E. W. Glaze (1431-1) is assistant manager. Coaches are V. J. Roh (7164-2) and R. E. Evans (4412-4).

Roy E. Carlmark Died July 7 After Lengthy Illness

Roy E. Carlmark, a Corporation employee for nine years, died July 7 after a lengthy illness. He was a staff assistant in Ordering Division 2644.

Funeral services were held on July 10 with burial at Fairview Cemetery.

Survivors include three children: the Rev. Herbert B. Carlmark of Rapid River, Mich.; Bruce E. of Albuquerque; and Mrs. Marlin Pound of Livermore, Calif. He also had a brother, three sisters, and six grandchildren.

Savings Bank Offered Credit Union Members

Dale R. Bellamy, manager of the Sandia Laboratory Federal Credit Union, has announced the purchase of transparent plastic savings banks which are available, one to a customer, to members for 50 cents each.

"We think it's very worthwhile for each member of a family to have his own savings account," Mr. Bellamy explains. "We're sure that these banks will help members to save."

The banks are being offered as an incentive to stimulate new-member enrollment. Persons interested in joining may visit the Credit Union's office in Building T-609, or may write for membership applications.

Livermore employees may obtain banks and join the Credit Union by contacting Employee Services 8212-2, ext. 2252.



NEW AMBULANCE, placed in service at Sandia Laboratory last week, is given checkover by Dr. S. B. Over (3320) and C. L. Hines of Health Ser-

vices Division. Built-in oxygen equipment and air conditioning units are special features of emergency vehicle which has space for four stretchers.

Sandia's Safety Record

**Sandia
Laboratory
HAS WORKED
3,840,000 MAN HOURS
OR 109 DAYS
WITHOUT A
DISABLING INJURY**

**Livermore
Laboratory
HAS WORKED
440,300 MAN HOURS
OR 87 DAYS
WITHOUT A
DISABLING INJURY**